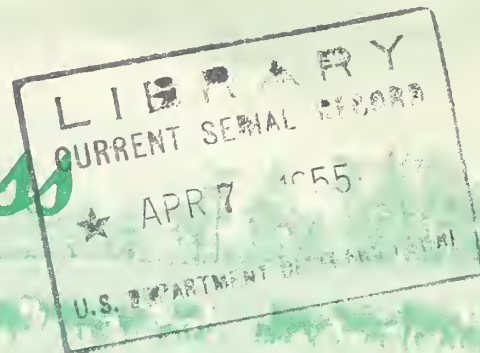


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Grassland Progress



U. S. DEPARTMENT OF AGRICULTURE, LAND-GRANT COLLEGES, AND COOPERATORS

DECEMBER 1954

No. 4

Grazing Small Grains Pays Well: The real value from pasture on New Jersey farms comes through extending the pasture season as long as possible. With the use of small grains the pasture season can be extended to a full 8 months. This is approximately a 40-percent increase in pasture time over the usual 5½ months grazing season from permanent pasture alone. For pasture purposes Balbo rye yields the best.

According to a 4-year study at New Brunswick, rye produced almost twice as much grazing as barley or wheat and nearly three times as much as winter oats. In this test the small

grains were pastured in both fall and spring. In fact, the rye produced nearly as much forage per acre in 8 weeks of fall and spring grazing as did a well-fertilized bluegrass pasture during the 5 months from May to September.

In addition to the pasture, the small grains grazed only in the fall yielded 8 percent more grain than the similar plots not grazed. In one favorable year fall-grazed wheat yielded over 25 percent more grain. Grazing in both the fall and spring resulted in only about 6 percent less grain than plots not grazed. The grain yields from rye and wheat grazed only in the spring were reduced almost 20 percent.

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Grasslands To Be Featured: Grassland farming is to be featured in Farm Equipment Retailing, the official publication of the National Retail FARM Equipment Association. The February issue of this journal, in its entirety, will be devoted to grassland farming. This is, as far as is known, the first time any national trade journal has undertaken to portray so many features

of grasslands. The issue will include, among other things, grassland farming machines, their uses and their markets; how-to-do-it information for dealers to use in helping customers get into grassland farming; explanation of Government controls fostering grassland farming; and a directory of grassland farming equipment, wholesalers, and related information.

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Legumes for Green Manure: Six legumes have been compared in Iowa for their value as a green-manure crop. Madrid sweetclover produced an average of 85 pounds of nitrogen per acre, Ladino clover 76 pounds, alfalfas (Grimm and Southern Common) and medium red clover about 50 pounds, and Hubam sweet-clover about 28 pounds of nitrogen per acre in tops and roots. The final test of the differences among legumes is in the comparative yields of corn grown in the succeeding year. The highest corn yields from legume plots

were following Ladino clover which gave a 31-bushel increase over plots with no legume or fertilizer. Madrid sweetclover gave an increase of 23 bushels, the alfalfas and red clover about 20 bushels, and Hubam sweet-clover only 14 bushels. Legume nitrogen was not as efficient in increasing corn yields as is fertilizer nitrogen. Fifty pounds of fertilizer nitrogen (as 33-0-0) gave a yield increase of 30 bushels, while 50 pounds of legume nitrogen in alfalfa and red clover gave a yield increase of about 20 bushels per acre.

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Pacific Northwest Contest: The States of Idaho, Oregon, and Washington have completed their fourth year of the "Grassman of the Year" contest. In the counties, winners are picked for State contenders and the winners from the three States compete for the "Grassman of the Year." The chambers of commerce, along with livestock associations, farm organizations, power companies, and others in the three States cooperate with the land-grant colleges in sponsoring the event.

The purpose of this unique endeavor is to

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New Wheatgrass Variety: Nordan crested wheatgrass, developed by the Federal Northern Great Plains Field Station, Mandan, N. Dak., is being released cooperatively by the United States Department of Agriculture and the North Dakota Agricultural Experiment Station.

Nordan crested wheatgrass is similar to common commercial standard in general appearance but has more uniformity in plant type, and the plants are more erect and more resistant to lodging--an advantage when heavy stands are being held for seed production. Also, the heads of Nordan are more compact, the seed is larger, more plump, uniform, and of higher quality.

Nordan seed has fewer awns, and thus is

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Liming Results in Connecticut: The effectiveness of surface-applied lime and fertilizers is sometimes questioned. This subject is a very important one to those who wish to keep their lands in perennial legumes and grasses for many consecutive years. In regard to lime, agronomists at the Storrs, Conn., Agricultural Experiment Station have been studying the penetrative effects of surface-applied limestone for 25 years. A brief summary of the results follows:

On long untilled, fine sand loam, acid soil of a permanent pasture, the rate and depth of decreasing acidity from surface-applied limestone depended chiefly on two factors: (1) quantity of limestone added, and (2) time since application. For example, 5 years after liming at 1 ton per acre, only 20 percent of the acidity of the third inch of soil had been counteracted. The corresponding figure for the 2-ton rate was 60 percent and for the 4-ton rate, 80 percent. Furthermore, the greatest depth affected after 5 years was the third inch for 1 ton, the fifth inch for 2 tons, and the sixth inch for 4 tons.

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A New Alfalfa: The California and Nevada Experiment Stations are jointly releasing a new alfalfa variety called Lahontan. This variety, developed in Nevada and increased in Cali-

emphasize the economic benefits of improved grasslands. Out of the 1,000 points used in the judging of the contestants, 400 points are allowed on the land and how it is used; 350 points on the types of grasses and legumes and how managed; 150 points for livestock; and 100 points for the man or the operator and his leadership in the community.

The 1954 Grassman of the Year has just been announced. He is Mr. Milton Branch, of Midvale, Idaho.

easier to thresh and process and to feed through the drill uniformly during the planting process. Particularly significant is the difference in seedling vigor. Nordan has a more vigorous and aggressive growth the first year. The difference in seed quality and seedling vigor is expected to make it easier to establish stands.

Differences in yields of forage or seed for Nordan as compared with standard crested wheatgrass, where stands are equal, have not been significant.

Foundation and registered seed are being made available this spring to selected growers interested in growing Nordan for future increase of the seed supply.

To illustrate the importance of the time factor, the greatest depth with decreased acidity from the 2-ton application of limestone was 2 inches after 2 years, 5 inches after 5 years, and 8 inches after 8 years.

It is concluded that if one adds only a little lime, the acidity of the soil will not be affected very much anywhere and scarcely at all a very few inches below where it is placed. On the other hand, liberal liming on the surface, either all at one time or the same total amount over a period of years, will counteract most of the acidity in the upper inches of soil and also markedly decrease the acidity for several inches and even more than 2 feet below the surface.

If lime is applied on the surface only once, its downward movement will finally leave the upper layers of soil more acid than those further down. In the Storrs experiments, this was found to have occurred 8 years after the application of limestone at 4 tons per acre, and after 18 years when such unusually large rates as 8 and 16 tons had been applied.

fornia, is resistant to stem nematode and bacterial wilt. On the average, yields in California are about 5 percent less than Calaverde.

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Silage Fed Calves Require Supplement: Grazing experiments at the Minnesota station indicate that when silage is the basic feed of wintering calves it must be supplemented with alfalfa

hay and some concentrated feed. Apparently calves do not have sufficient feed capacity to consume enough silage to meet their growth requirements.

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Agricultural Marketing Service Studies Grasslands: The Agricultural Estimates Division of AMS is aware of the importance of the increasing contribution of pasture output to the total feed supply, and has started some pre-

liminary research on types of operations and ways of collecting pasture production information. This work is being carried on along with their expended program of research on methodology.

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Wisconsin Alfalfa Facts: Tests at the Wisconsin Experiment Station show that both wilt resistance and winter hardiness of alfalfa are important for Wisconsin. Wilt and winter injury go hand in hand. Low winter temperatures crack the plant open

so bacteria can get in and wilt-infected plants winterkill easily. Both Ranger and Vernal are well-adapted, hardy varieties for Wisconsin. Vernal is somewhat more hardy, and its use will increase as seed supplies become available.

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Agricultural Conservation Program Aids Grassland Farming: Grassland farming is encouraged by cost sharing under the Agricultural Conservation Program. Generally, ACP provides up to 50 percent of the average cost of seedbed preparation, seed, fertilizer, and lime where needed to establish permanent vegetative cover for soil protection. This is true, also, when land-use adjustment is needed, where grasses and legumes are seeded in a crop rotation, or for winter cover in excess of normal. Also, under a recent change in the Agricultural Conservation Program, any farmer is eligible to apply for ACP assistance for planting cover or green-manure crops on cropland, which will be shifted from crop production in 1955.

The 1954 program is still available for fall seedings. Under the 1955 program, because of a recent amendment to the law, only those farmers who are in compliance with acreage

allotments for basic crops on the farm will be eligible.

In areas where it is determined that damage from drought is sufficiently severe, authority has recently been extended for emergency ACP measures. Under this emergency provision ACP cost sharing is available for seeding winter cover crops, including small grains, without regard to the increased acre requirement of the regular program practices and without requiring that the land be devoted to cover crops throughout 1955. This will also provide emergency forage in areas where feed might need to be shipped in to maintain livestock.

Farmers who wish to obtain assistance for seedings must obtain approval of the county Agricultural Conservation and Stabilization Committee before starting the seeding. In many counties there is still time to apply for 1954 assistance. In many others county committees are accepting requests for 1955 cost sharing.

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Mountain Meadow Hay: Technical Bulletin 54, published by the Colorado Experiment Station, points out that, in general, the results from low-altitude investigations are applicable to the production of good quality, high-altitude meadow hay. The yield of forage continues to increase throughout the growing season as the plants mature, but the forage tends to become lower in percentages of crude protein and

total phosphorus as it becomes more mature. The greatest total production of protein and phosphorus, including both the regrowth and initial harvest, is obtained when the initial harvest is made near the end of June. Delaying the time of the initial harvest has greater effect in decreasing the protein percentages in the forage where nitrogen fertilizer has been applied than where none has been added.

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New Machines in Grassland Agriculture: A new farm implement, which has come on the market very recently and promises to have a place in Wyoming's agriculture, is the new sod drill or 'pasture renovator.' This machine has a series of furrow openers, usually 6 or 7, each of which follows a rolling coulter. Each furrow opener is connected by seed tubes to hoppers which meter out fertilizer, grass, and legume seed. This machine provides a means of introducing seed and fertilizer into sodded ground without previous seedbed preparation. Similar machines are also in use in the South.

Another new implement for the range is being developed by converting a mulch planter, originally used in the Corn Belt, into a machine to be used for seeding rows of grass or legumes, or both, into rangeland. The machine consists of 2 pairs of sweeps,

spaced 40 inches apart; 1 sweep in each pair is above the other. The upper one is 36 inches wide and is adjusted to run about 2 inches deep at the point with the outer wings running just above the surface of the ground; the lower 18-inch sweep runs about 4 inches deeper than the other. These sweeps make a well-pulverized seedbed about 18 inches wide, leaving 22 inches between each worked strip.

If desired, fertilizer can be placed at the level of the lower sweep. Following the sweeps is a planter which can plant grass or legume seed, or both, and a press wheel follows the furrow opener that places the seed. The machine is powered by a 4-plow tractor and should be able to cover 3 acres per hour. Field tests are just beginning, but so far the machine appears to have a good chance of working with a reasonable amount of success.

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Pennsylvania State Offers Grassland Course: The College of Agriculture at the Pennsylvania State University has announced it will conduct a one week short course in grassland farming

in March. This is the first time a course specifically aimed at grassland farming has been offered by Pennsylvania State.

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GRASSLAND PUBLICATIONS (Copies available from issuing agency.)

Please do not write to us for copies.)

Colorado Extension Service: Bul. 434, Better Quality Mountain Meadow Hay Through Early Harvesting and Fertilization.
Georgia Extension Service: Cir. 291, Growing Grain Sorghum.
Idaho Extension Service: Bul. 195, Grassland Farming.
Cir. 125, Green Gold in Idaho.
Maryland Experiment Station: Bul. 419, Pasture Renovation.
North Carolina Extension Service: cir. 301 (revised), Ladino Clover.
Cir. 307 (revised), Alfalfa Production in North Carolina.
Ohio Extension Service: Bul. 345, Good Pasture.
Oklahoma Extension Service: Cir. 557, Pasture and Range Judging.
Texas Extension Service: Bul. 218, Emergency Feeding of Livestock.
Bul. 225, Research on Rice Production in Texas.
Bul. 229, Sprinkler Irrigation.
Cir. 335, Guides for Proper Grazing.
Ext. Leaflet. 183, Reseeding on the High and Rolling Plains of Texas.
Ext. Leaflet. 206, Legume Inoculation.

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Items or publications for Grassland Progress should be addressed to L. I. Jones, Federal Extension Service, United States Department of Agriculture, Washington 25, D. C.

Please do not write to us for copies of publications. Write to issuing agency.

Ext. Leaflet. 211, Rescuegrass.
Texas Experiment Station: Sta. Progress Rpt. 1471, Feed Reserves--Drouth Insurance for Beef Producers.
Sta. Progress Rpt. 1543, Fescue Grass and Legumes for Soil Improvement and Forage Production at the Blackland Station.
Sta. Progress Rpt. 1580, Germination and Growth of Bitterweed From Seed Matured on Plants Killed With Herbicides.
Sta. Progress Rpt. 1612, Oak Control Studies at the West Cross Timbers Experiment Station.
Sta. Progress Rpt. 1620, Salt Tolerance of Five Grasses.
Sta. Progress Rpt. 1657, Sudan for Grazing and Hay.
Sta. Progress Rpt. 1667, Buffelgrass.
Sta. Progress Rpt. 1693, Grazing and Feeding Trials, Blackland Experiment Station, 1952-53.
Sta. Progress Rpt. 1698, Perennial Warm Season Grass Test, Lower Rio Grande Valley of Texas.
Sta. Progress Rpt. 1703, Value of Pastures for Dairying in East Texas.